

FROST & SULLIVAN

2010 BEST PRACTICES AWARD

Market Leadership - Industrial Batteries  
India Back-up Power Industry  
Excellence Awards



# INVA TUBULAR



The Ultimate Inverter Battery



Winner of EFY Awards for Best SMF Battery 6 times in a row 2005, 2006, 2007, 2008, 2009 & 2010

*Mera Inverter Maange Only* **INVA**

Presenting, Exide **INVA TUBULAR** 400, 500, 550 and 750—the next generation tubular batteries designed specially to withstand long and frequent power interruptions. The **ULTIMATE INVERTER BATTERIES**.



**FEATURES**

- Ironclad® Tubular Technology ● Electrolyte level indicator ● High Acid volume per ampere hour ● Deep cycle design ● Resistance to abuse ● Tower type design ● Common Side Venting ● Conforms to IS 13369 – 1992

**ADVANTAGES**

I Very long life I User friendly I Acid volume per ampere hour is 30% more than that of ordinary tubular batteries. It acts as a coolant and also ensures very low maintenance I Suited for use in areas of frequent power cuts (800 to 1000 cycles of deep discharge as against 300/400 cycles of other batteries) I Can withstand overcharge better I Occupies less floor space, totally new look I Less pollution, environment friendly I Ensures consistent quality

**APPLICATION**

The next generation tubular battery designed specially to withstand long and frequent power interruptions. It is the ultimate Inverter battery.

**TECHNICAL SPECIFICATION**

Model	Capacity at 27 °C when discharged at C20 upto 1.75 vpc	Dimension (+/-3mm)			Weight (Kg+/-5%)		Volume of Electrolyte (1.220 Sp. Gr)	Initial charge Minimum AH input (AH)	Initial Charge at Constant Current (A)		Constant Potential Limiting Current (Amps)	Trickle Charge (Current in mA)	
		Length	Width	Height*	Dry	Filled			Liters/Cell	Start (upto 2.36 vpc)		Finish (upto 2.75 vpc)	Min.
IT 400	115Ah	500	187	416	29.00	53.80	3.38	450	12.0	6.0	25	100	400
IT 500	150Ah	500	187	416	33.77	59.81	3.43	540	14.4	7.2	30	120	480
IT 550	165Ah	500	187	416	36.85	61.65	3.33	610	16.2	8.1	34	135	540
IT 750	200Ah	500	187	416	41.44	66.00	3.30	810	21.6	10.8	45	180	720

\*The height mentioned is upto terminal top.

**INITIAL CHARGING INSTRUCTIONS**

1. Filling in Specific Gravity	1.220 +/- 0.005 at 27 °C	However in both cases, minimum Ah input to be given. Under no circumstances, battery temperature should exceed 50 °C. In case the temperature exceeds 50 °C, adequate rest to be given till the electrolyte temperature comes to ambient temperature and charging to be continued.
2. Rest Period	12 hrs.	
3. Minimum Ah input	450Ah for IT400, 540Ah for IT500, 610Ah for IT550 and 810Ah for IT750	
4. In order to reduce the charging time, the following routine may be adopted. For IT400, the initial charging current may be 12A upto 2.36 vpc followed by 6A upto 2.75 vpc. For IT500, the initial charging current may be 14.4A upto 2.36 vpc followed by 7.2A upto 2.75 vpc. For IT550, the initial charging current may be 16.2A upto 2.36 vpc followed by 8.1A upto 2.75 vpc. For IT750, the initial charging current may be 21.6A upto 2.36 vpc followed by 10.8A upto 2.75 vpc.		
5. Conditions of fully charged	a) 3 consecutive hourly readings of specific gravity and voltage become constant b) Top of charge voltage will be around 16.2V – 16.5V c) All cells should gas freely d) Minimum Ah has been given	
6. Specific Gravity at fully charged condition	1.250 +/- 0.005 at 27 °C	

**NORMAL RECHARGING INSTRUCTIONS**

Recharging through Inverter at constant potential mode of 14.4V with limited current as specified. After battery potential reaches 14.4V, the battery should continue in trickle charge mode at constant potential of 13.5V.

**APPLICATION CHART**

Electrical Load	System Voltage	Reco. Inverter Rating	Recommended Battery for Different Back-up time				
			5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hr.
2 Tube + 2 Fan	12	650 VA	IT750	IT500	IT400	IT400	IT400
4 Tube + 4 Fan	12	650 VA	2P IT750	2P IT500	2P IT400	IT750	IT400
4 Tube + 5 Fan + 1 TV	12	850 VA	3P IT550	2P IT750	2P IT550	2P IT500	IT550
8 Tube + 9 Fan + 1 TV	24	1450 VA	2S X 2P IT750	2S X 2P IT750	2S X 2P IT500	2S IT750	2S IT500

**NOTE:** If the limit current of one battery is 'A' amp, for 'N' no. batteries in parallel, the limit current for charging of inverter should be AxN amp. Otherwise there will be problem during charging in parallel connection. This point should be taken in consideration before putting batteries in parallel combination.

S= Series connection; P= Parallel connection.

e.g. 2S X 3P = A string containing 2 nos. batteries in series and 3 nos. such strings in parallel.

**Statutory Notice:**

All batteries contain lead, which is harmful for humans and environment. As per statutory requirements, the used battery must be returned to the authorized dealer, manufacturer or at the designated collection centres.

Contact our Exide Powercentre Showrooms for Sales & Services



**INVA TUBULAR** is a product of ISO 9001 and ISO 14001 certified factories

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